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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO. <i>707</i>
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EXAMINER
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ART UNIT	PAPER NUMBER
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DATE MAILED:

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

# Office Action Summary

Application No.

09/273,261

Applicant(s)

HATTORI ET AL.

Examiner

Quynh-Nhu H. Vu

Art Unit

2871

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).

## Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☐ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claims \_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are objected to by the Examiner.
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. § 119

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
- a) ☒ All b) ☐ Some \* c) ☐ None of the CERTIFIED copies of the priority documents have been:
1. ☒ received.
2. ☐ received in Application No. (Series Code / Serial Number) \_\_\_\_.
3. ☐ received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. & 119(e).

## Attachment(s)

- 15) ☒ Notice of References Cited (PTO-892)
- 16) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 17) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_
- 18) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_
- 19) ☐ Notice of Informal Patent Application (PTO-152)
- 20) ☐ Other: \_\_\_\_

Art Unit: 2871

## **DETAILED ACTION**

### ***Specification***

Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 250 words. It is important that the abstract not exceed 250 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

The abstract of the disclosure is objected to because it has more than one paragraph. Correction is required. See MPEP § 608.01(b).

### ***Drawings***

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the recited feature "an adhesive layer which contains carbon black dispersed therein and is formed on one surface of a transparent substrate" of claim 1, the recite feature "an anti-reflection layer is formed on one surface or each surface of the transparent substrate" of claim 2, and the recite feature "a hard coating layer and an ant-reflection layer are consecutively formed on the other surface of the transparent substrate" of claim 11 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

((e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

1. Claim 1 is rejected under 35 U.S.C 102(e) as being clearly anticipated by Okamoto et al. [PN 5,889,569].

Okamoto et al. disclose in column 1 lines 16-20, column 3 lines 18-19 and column 6 lines 25-33, a liquid crystal display comprising: an adhesive layer which contains carbon black dispersed therein and is formed on one surface of a transparent substrate.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Okamoto et al. in view of Lin [PN 6,071,653].

Okamoto et al., as applied in prior rejection, disclose all claimed subject matter except an anti-reflection layer is formed on one surface. However, Lin discloses in Fig. 2A or Column 2 lines 31-41, an anti-reflection layer (62) is formed on the transparent substrate to prevent a light reflection. It would have been obvious at the time the invention was made to a person having ordinary skill in the art to add an anti-reflection layer is formed on one surface or each surface of the transparent substrate to prevent undesirable light reflection at the interface.

3. Claims 3 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Okamoto et al. in view of Drumm [PN 6,025,097].

Okamoto et al., as applied in prior rejection, disclose all claimed subject matter except the adhesive layer further contains a coloring pigment different from the carbon black and the coloring pigment is at least one pigment selected from the group consisting of a red pigment and a blue pigment.

Drumm discloses in Fig. 1E defining a plurality of color pigment (104) include: red, green and blue color are disposed. Even, Drumm does not claim the adhesive layer. However, it is inherent in skill in the art to have adhesive layer contains the color pigment. (Column 2 lines 63-67).

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to add a color pigment for reducing reflection of unwanted lights and increasing the transmission lights.

4. Claim 5-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Okamoto et al. [PN 5,889,569] in view of Kawazu et al. [PN 5,876,854].

Okamoto et al., as applied in prior rejection, disclose all claimed subject matter except the attachment film is colored in neutral gray.

Kawazu et al. disclose in Column 3 lines 15-34 the attachment film is colored in neutral gray. The a-value and b-value of neutral gray which are within  $\pm 5$  each when measured with a color-different meter to reduce the dazzle caused by reflection and in order to assure correct color of displayed image.

Thus, It would have been obvious at the time the invention was made to a person having ordinary skill in the art to make attachment film having color in neutral gray. The neutral gray having an a-value and b-value are within  $\pm 5$  to reduce the dazzle caused by reflection and in order to assure correct color of displayed image.

5. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Matsubaguchi et al. [PN 6,030,689] in view of Okamoto et al. [PN 5,889,569].

Matsubaguchi et al. disclose the carbon black in the adhesive layer has an average particle diameter from 5 to 80 nm, and a specific surface area of from 100 to 500 m<sup>2</sup>/g except the carbon black is formed on one surface of a transparent substrate.

Okamoto et al. disclose in Column 11 lines 43-48, the carbon black being formed on one surface of a transparent substrate.

Art Unit: 2871

Thus, It would have been obvious at the time the invention was made to a person having ordinary skill in the art to have the carbon black being formed on one surface of a transparent substrate to absorb the light.

6. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Okamoto et al. in view of Ito [PN 5,370,930], Conforti et al. [PN 5,620,819] and Ueda et al. [PN 5,968,244].

Okamoto et al., as applied in prior rejection, disclose all claimed subject matter except adhesive layer contains an acrylic adhesive having a carboxyl group and/or a hydroxyl group and the carbon black is an acidic carbon black.

Ito discloses in Column 7 lines 47-49 that acrylic resin can be used as the adhesive layer.

Conforti et al. disclose in Column 16 lines 54-59 the adhesive layer (18) has a carboxyl groups to develop rapidly substantial precuring and pre-curing adhesion.

Ueda et al. disclose in Column 2 lines 52-58 the carbon black is an acidic carbon black to produce excellent dispersibility in water by increasing the surface area and having chemical properties akin to water-soluble dyes.

Thus, It would have been obvious at the time the invention was made to a person having ordinary skill in the art to make adhesive layer containing an acrylic adhesive having a hydroxyl group or carboxyl group to develop rapidly substantial precuring and pre-curing adhesion. Since carbon black is acidic to produce excellent dispersibility in

water by increasing the surface area and having chemical properties akin to water-soluble dyes.

7. Claims 9 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Okamoto et al. in view of Urano et al. [PN 5,800,952].

Okamoto et al., as applied in prior rejection, disclose all claimed subject matter except adhesive layer further contains a photopolymerizable compound and a photopolymerization initiator. Adhesive layer contains a (meth) acrylate resin as an adhesive and a (meth) acrylate monomer or oligomer as photopolymerizable compound.

Urano et al. disclose in Column 2 lines 12-41 and Column 7 lines 17-36 the adhesive layer further contains a photopolymerizable compound and a photopolymerization initiator to improve the developability, the sensitivity, the image-reproducing property and the adhesive property. And organic binder polymer material may, for example, be an alkyl ester which may have a substituent, of (meth) acrylate) and alkali-solute polymer comprising a monomer having (meth) acrylic acid monomer or photopolymerizable compound to develop with alkali aqueous solution but not with organic solvent.

Thus, It would have been obvious at the time the invention was made to a person having ordinary skill in the art to have adhesive layer further contains a photopolymerizable compound and a photopolymerization initiator to improve the developability, the sensitivity, the image-reproducing property and the adhesive



property. And contains a (meth) acrylate resin to develop with alkali aqueous solution but not with organic solvent.

8. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Miyashita et al. [PN 5,783,299] in view of Okamoto et al. [PN 5,889,569] and Urano et al. [PN 5,800,952].

Miyashita et al. disclose in Fig. 2 the adhesive layer is formed on one surface of the transparent substrate (10), an adhesive layer (52), a hard coating layer (20) and an anti-reflection layer are consecutively formed on the other surface of the transparent substrate. However, Miyashita et al. do not disclose an adhesive layer which contains carbon black dispersed and adhesive layer further contains a photopolymerizable compound and a photopolymerization initiator.

Okamoto et al. disclose an adhesive layer which contains carbon black dispersed.

Urano et al. disclose an adhesive layer further contains a photopolymerizable compound and a photopolymerization initiator.

Thus, It would have been obvious at the time the invention was made to a person having ordinary skill in the art to have a carbon black dispersed to absorb the light. And adhesive layer further contains a photopolymerizable compound and a photopolymerization initiator to improve the developability, the sensitivity, the image-reproducing property and the adhesive property.

Application/Control Number: 09/273,261  
Art Unit: 2871

Page 9

***Contact Information***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Quynh-Nhu Vu whose telephone number is (730) 305-0850.

QNV

7/12/00

*William L. Scher*